

Index to the Journal of The South African Institute of Mining and Metallurgy

SUPPLEMENT TO THE JOURNAL OF THE SOUTH AFRICAN INSTITUTE OF MINING AND METALLURGY, MARCH/APRIL 1997



**Volume 96
January–December
1996**

SA ISSN 0038-223X
Published by
The South African
Institute of Mining and
Metallurgy,
13th Floor, Cape Towers,
11–13 MacLaren Street,
Johannesburg, 2001

The South African Institute of Mining and Metallurgy

OFFICE BEARERS AND COUNCIL FOR THE 1996/97 SESSION

Honorary President

Dr N.S. Segal
President, Chamber of Mines of South Africa

Honorary Vice-Presidents

P. M. Maduna
Minister of Mineral and Energy Affairs

A. Erwin
Minister of Trade and Industry

D. Bakker
Chief Inspector of Mines

President

Dr N.A. Barcza

President Elect

R.P. Mohring

Vice-Presidents

J.R. Dixon
M.H. Rogers

Immediate Past President

D.A.J. Ross-Watt

Honorary Treasurer

J.A. Cruise

Ordinary Members of Council

J.P.W. Bennie
Dr L.A. Cramer
A.A.B. Douglas
F.M.G. Egerton
Prof. R.H. Eric
Dr M.A. Ford
Prof. G.A. Fourie
Dr R.G. Gürtunca
Dr R.V.R. Handfield-Jones
* Co-opted

P.J. Knottenbelt
R.G. Mills
S.J. Ramokgopa*
Dr A.J.S. Spearing
Dr T.R. Stacey
D.J. van Niekerk
P.J. Venter
J.C. Viljoen*
P.M.T. White

Branch Chairmen

Prof. C.T. O'Connor, Western Cape Branch
E.N.D. Westgate, Orange Free State Branch
R.E. Jennings, Mpumalanga Branch
E.G. de Villiers, Johannesburg Branch
Prof. P.G.H. Pistorius, Pretoria Branch
S.W. Hanrahan, Bushveld Branch
M.J. Beart, Zululand Branch
J.S.A. Folkard, Natal Branch

Past Presidents Serving on Council

P.W.J. van Rensburg
Prof. R.P. Plewman
Prof. R.E. Robinson
G.Y. Nisbet
Prof. A.N. Brown
J.D. Austin
H.E. James

B.C. Alberts
C.E. Fivaz
Dr O.K.H. Steffen
H.G. Mosenthal
R.D. Beck
Dr H. Scott-Russell

Corresponding Members of Council

Australasia: I.J. Corrans, R.H. Swan, Prof. J.S.J. van Deventer,
Prof. R.J. Dippenaar

Botswana: S.D. Williams

Brazil: A.G. Netto, P. Smith, K.C. Owen

Canada: Prof. B.W. Mackenzie, M.A. de Ruijter

Chile: Dr E.J. Magri

Europe: Dr H. Wagner

Far East: Vacant

Ghana: G.T. Lewis

New Zealand: A.C. Burrow

United Kingdom: Dr M.G. Atmore, Prof. C.T. Shaw, Dr J.J.L. Cilliers

USA: Dr J.-M.M. Rendu, Prof. M.D.G. Salamon, Prof. R.P. King

Zimbabwe: J.E. Clarke

PAST PRESIDENTS

*Deceased

- * W. Bettel (1894-1895)
- * A.F. Crosse (1895-1896)
- * W.R. Feldtmann (1896-1897)
- * C. Butters (1897-1898)
- * J. Loevy (1898-1899)
- * J.R. Williams (1899-1903)
- * S.H. Pearce (1903-1904)
- * W.A. Caldecott (1904-1905)
- * W. Cullen (1905-1906)
- * E.H. Johnson (1906-1907)
- * J. Yates (1907-1908)
- * R.G. Bevington (1908-1909)
- * A. McA. Johnston (1909-1910)
- * J. Moir (1910-1911)
- * C.B. Saner (1911-1912)
- * W.R. Dowling (1912-1913)
- * A. Richardson (1913-1914)
- * G.H. Stanley (1914-1915)
- * J.E. Thomas (1915-1916)
- * J.A. Wilkinson (1916-1917)
- * G. Hildick-Smith (1917-1918)
- * H.S. Meyer (1918-1919)
- * J. Gray (1919-1920)
- * J. Chilton (1920-1921)
- * F. Wartenweiler (1921-1922)
- * G.A. Watermeyer (1922-1923)
- * F.W. Watson (1923-1924)
- * C.J. Gray (1924-1925)
- * H.A. White (1925-1926)
- * H.R. Adam (1926-1927)
- * Sir Robert Kotze (1927-1928)
- * J.A. Woodburn (1928-1929)
- * H. Pirow (1929-1930)
- * J. Henderson (1930-1931)
- * A. King (1931-1932)
- * V. Nimmo-Dewar (1932-1933)
- * P.N. Lategan (1933-1934)
- * E.C. Ranson (1934-1935)
- * R.A. Flugge-De-Smidt (1935-1936)
- * T.K. Prentice (1936-1937)
- * R.S.G. Stokes (1937-1938)
- * P.E. Hall (1938-1939)
- * E.H.A. Joseph (1939-1940)
- * J.H. Dobson (1940-1941)
- * Theo Meyer (1941-1942)
- * John V. Muller (1942-1943)
- * C. Biccard Jeppe (1943-1944)
- * P.J. Louis Bok (1944-1945)
- * J.T. McIntyre (1945-1946)
- * M. Falcon (1946-1947)
- * A. Clemens (1947-1948)
- * F.G. Hill (1948-1949)
- * O.A.E. Jackson (1949-1950)
- * W.E. Gooday (1950-1951)
- * C.J. Irving (1951-1952)
- * D.D. Stitt (1952-1953)
- * M.C.G. Meyer (1953-1954)
- * L.A. Bushell (1954-1955)
- * H. Britten (1955-1956)
- * Wm. Bleloch (1956-1957)
- * H. Simon (1957-1958)
- * M. Barcza (1958-1959)
- * R.J. Adamson (1959-1960)
- * W.S. Findlay (1960-1961)
- * D.G. Maxwell (1961-1962)
- * J. de V. Lambrechts (1962-1963)
- * J.F. Reid (1963-1964)
- * D.M. Jamieson (1964-1965)
- * H.E. Cross (1965-1966)
- * D. Gordon Jones (1966-1967)
- * P. Lambooy (1967-1968)
- * R.C.J. Goode (1968-1969)
- * J.K.E. Douglas (1969-1970)
- * V.C. Robinson (1970-1971)
- * D.D. Howat (1971-1972)
- * J.P. Hugo (1972-1973)
- * P.W.J. van Rensburg (1973-1974)
- * R.P. Plewman (1974-1975)
- * R.E. Robinson (1975-1976)
- * M.D.G. Salamon (1976-1977)
- * P.A. Von Wielligh (1977-1978)
- * M.G. Atmore (1978-1979)
- * D.A. Viljoen (1979-1980)
- * P.R. Jochens (1980-1981)
- * G.Y. Nisbet (1981-1982)
- * A.N. Brown (1982-1983)
- * R.P. King (1983-1984)
- * J.D. Austin (1984-1985)
- * H.E. James (1985-1986)
- * H. Wagner (1986-1987)
- * B.C. Alberts (1987-1988)
- * C.E. Fivaz (1988-1989)
- * O.K.H. Steffen (1989-1990)
- * H.G. Mosenthal (1990-1991)
- * R.D. Beck (1991-1992)
- * J.P. Hoffman (1992-1993)
- * H. Scott-Russell (1993-1994)
- * J.A. Cruise (1994-1995)
- * D.A.J. Ross-Watt (1995-1996)

Council of Mining and Metallurgical Institutions

Representative: Dr O.K.H. Steffen, R.P. Mohring
Alternates: Prof. C.T. Shaw, Prof. D. Buchanan

The Associated Scientific and Technical Societies of South Africa

Representatives: Dr N.A. Barcza, R.P. Mohring
Alternates: J.A. Cruise, D.A.J. Ross-Watt

Honorary Legal Advisers

Messrs Van Hulsteyn, Duthie & Saner

Auditors

Messrs Aiken & Peat

Secretaries

The South African Institute of Mining and Metallurgy,
13th Floor - Cape Towers, 11-13 MacLaren Street, Johannesburg 2001.
Telegraphic Address: Perspicax.
P.O. Box 61127, Marshalltown 2107.
Telephone (011) 834-1273/7, Fax (011) 838-5923.
e-mail: saimm@iafrica.com

This journal is published with financial assistance from the
Foundation for Education, Science and Technology

Index

Contents

1	January/February	1
2	March/April	41
3	May/June	85
4	July/August	133
5	September/October	173
6	November	229
7	December	297

Papers and Notes in the Journal

	<i>Page</i>
New Year's message from the President	1
Discussion: <i>Review of evaluation models for the representative sampling of ore</i> , by W. Assibey-Bonsu	2
Reduction and sintering of fluxed iron ore pellets—a comprehensive review, by S. Prakash	3
The properties of cemented silicated backfill for use in narrow, hard-rock, tabular mines, by G.E. Blight and A.J.S. Spearing	17
An overview of the structural design of mine haulage roads, by R.J. Thompson and A.T. Visser	29
Symposium on Clean Steel Production, Vanderbijlpark, 18–20 September 1995, by A.W. Cramb	38
Evaluation of the influence of grout pre-stressing systems on the performance of timber packs: static and dynamic considerations, by A. Daehnke, P.N. Taggart, and M.K.C. Roberts	41
The design of tunnel support in deep hard-rock mines under quasistatic conditions, by C.R. Speers and A.J.S. Spearing	47
Overview of new developments in composite materials for industrial and mining applications, by J. Markgraaff	55
Book review: <i>International Symposium-cum-Workshop on Management and Control of High Gas Emissions and Outbursts in Underground Coal Mines</i>	66
Environmental management in mining: an international perspective of an increasing global industry, by J.M. Epps	67
INFACON 7, Trondheim, Norway, June 1995, by N.A. Barcza	75
Increasing black representation in mining engineering: The need for a new approach, by J.C. Hillman	77
A bird's-eye view of materials engineering, by G.T. van Rooyen	85
New horizons for metallurgical engineers, by R.J. Dippenaar	91
The welding of experimental low-nickel Cr-Mn-N stainless steels containing copper, by M. Coetzee and P.G.H. Pistorius	99
Rate-determining mechanisms for the adsorption of gold di-cyanide onto activated carbon, by N.M. Vegter and R.F. Sandenbergh	109
Sensitization of type 430 ferritic stainless steel during continuous annealing, by P.C. Pistorius and M. Coetzee	119
Investing in a clean environment, by J-C. Paye	128
The preparation of chromium metal by a sealed, cold-hearth, plasma-assisted aluminothermic method, by L.R. Nelson	135
Materials selection in the mining industry: Old issues and new challenges, by M.B. Cortie, J.J. McEwan, and D.P. Enright	145

Index

ISEC '96, by K.C. Sole	158
Discussion: <i>A viscoelastic approach to the modelling of the transient closure behaviour of tabular excavations after blasting</i> , by G. Narsimhan	159
Book review: <i>St. Barbara—Journey of a Saint through Time</i> , by A.W. Davies	164
Report on an International Conference: Mineral Processing—Recent Advances and Future Trends, by M.H. Moys	165
The green face of mining, by A. Broad	169
Deep level mining and the role of R&D, by R.G.B. Pickering	173
Identifying profitability and safety 'hot spots' on your mine, by R.G.B. Pickering and S.G.E. Ashworth	177
Selective blast mining in gold mines, by I. Bock	183
The Vaun self-climbing skip (SCS) system, by B. Kenealy	187
Quantitative ground penetrating radar for rock mass characterization, by H. White, P. Meyer, and A. Doorgapershad	197
Centennial reflections of the Department of Mining Engineering at the University of the Witwatersrand, by S. Budavari and H.R. Phillips	201
The clean-up of the plant at Bracken Gold Mine, by M.A. de Ruijter	215
Presidential Address: The role of pyrometallurgy in the development of South Africa, by N.A. Barcza	229
On the torsional behaviour of triangular-strand hoisting rope, by G. Rebel, M. Borello, and H.D. Chandler	279
Summary of present knowledge on the representative sampling of ore in the mining industry, by W. Assibey-Bonsu	289
Discussion: <i>The design of tunnel support in deep hard-rock mines under quasistatic conditions</i> , by W.D. Ortlepp	295
Coal-mining productivity in South Africa compared with Australia and the USA, by D.R. Hardman	297
The use of geographical information systems in the integration and visualization of mining data, by S.J.C.L. Peeters and A.P. Jarosz	303
Sediments as indicators of wetland efficacy in ameliorating acid mine drainage, by D. Limpitlaw	309
Physical and numerical modelling of rock fracture, by M.U. Ozbay, T. Dede, and J.A.L. Napier	317
Minerals & Materials '96, by F.W. Petersen	326

Index

AUTHOR AND SUBJECT INDEX

> A

- Ashworth, S.G.E.
jt. author: Identifying profitability and safety 'hot spots' on your mine, by R.G.B. Pickering and S.G.E. Ashworth 177
- Assibey-Bonsu, W.
disc: *Review of evaluation models for the representative sampling of ore*, by N.O. Lotter [vol. 95, no. 4. 1995. pp. 149-155] 2
- author:** Summary of present knowledge on the representative sampling of ore in the mining industry 289

> B

- Barcza, N.A.
Presidential Address: The role of pyrometallurgy in the development of South Africa 229
- Spotlight:** INFACON 7, Trondheim, Norway, June 1995 75
- Blight, G.E.
jt. author: The properties of cemented silicated backfill for use in narrow, hard-rock, tabular mines, by G.E. Blight and A.J.S. Spearing 17
- Bock, I.
author: Selective blast mining in gold mines 183
- Borello, M.
jt. author: On the torsional behaviour of triangular-strand hoisting rope, by G. Rebel, M. Borello, and H.D. Chandler 279
- Broad, A.
author: The green face of mining 169
- Budavari, S.
jt. author: Centennial reflections of the Department of Mining Engineering at the University of the Witwatersrand, by S. Budavari and H.R. Phillips 201

> C

- Chandler, H.D.
jt. author: On the torsional behaviour of triangular-strand hoisting rope, by G. Rebel, M. Borello, and H.D. Chandler 279

CHROMIUM

- The preparation of chromium metal by a sealed, cold-hearth, plasma-assisted aluminothermic method, by L.R. Nelson 135

COAL mining

- Coal-mining productivity in South Africa compared with Australia and the USA, by D.R. Hardman .. 297
- Book review:** *International Symposium-cum-Workshop on Management and Control of High Gas Emissions and Outbursts in Underground Coal Mines* 66

- Sediments as indicators of wetland efficacy in ameliorating acid mine drainage, by D. Limpitlaw 309

Coetzee, M.

- jt. author:** Sensitization of type 430 ferritic stainless steel during continuous annealing, by P.C. Pistorius and M. Coetzee 119
- jt. author:** The welding of experimental low-nickel Cr-Mn-N stainless steels containing copper, by M. Coetzee and P.G.H. Pistorius 99

Cortie, M.B.

- jt. author:** Materials selection in the mining industry: Old issues and new challenges, by M.B. Cortie, J.J. McEwan, and D.P. Enright 145

Cramb, A.W.

- Spotlight:** Symposium on Clean Steel Production, Vanderbijlpark, 18-20 September 1995 38

> D

Daehnke, A.

- jt. author:** Evaluation of the influence of grout prestressing systems on the performance of timber packs: static and dynamic considerations, by A. Daehnke, P.N. Taggart, and M.K.C. Roberts 41

Davies, A.W.

- Book review:** *St. Barbara—Journey of a Saint through Time* 164

Dede, T.

- jt. author:** Physical and numerical modelling of rock fracture, by M.U. Ozbay, T. Dede, and J.A.L. Napier 317

De Ruijter, M.A.

- The clean-up of the plant at Bracken Gold Mine 215

Dippenaar, R.J.

- author:** New horizons for metallurgical engineers 91

Doorgapershad, A.

- jt. author:** Quantitative ground penetrating radar for rock mass characterization, by H. White, P. Meyer, and A. Doorgapershad 197

> E

ENGINEERING profession

- Increasing black representation in mining engineering: The need for a new approach, by J.C. Hillman 77

- New horizons for metallurgical engineers, by R.J. Dippenaar 91

Enright, D.P.

- jt. author:** Materials selection in the mining industry: Old issues and new challenges, by M.B. Cortie, J.J. McEwan, and D.P. Enright 145

Index

ENVIRONMENT

- Environmental management in mining: an international perspective of an increasing global industry, by J.M. Epps 67

- The green face of mining, by A. Broad 169

- Sediments as indicators of wetland efficacy in ameliorating acid mine drainage, by D. Limpitlaw 309

- Book review:** *International Symposium-cum-Workshop on Management and Control of High Gas Emissions and Outbursts in Underground Coal Mines* 66

- Investing in a clean environment, by J-C. Paye 128

Epps, J.M.

- author:** Environmental management in mining: an international perspective of an increasing global industry 67

► F

FERRO-ALLOYS

- Spotlight:** INFACON 7, Trondheim, Norway, June 1995, by N.A. Barcza 75

► G

GEOPHYSICAL methods

- Quantitative ground penetrating radar for rock mass characterization, by H. White, P. Meyer, and A. Doorgapershad 197

GEOSTATISTICS

- disc:** *Review of evaluation models for the representative sampling of ore*, by W. Assibey-Bonsu 2

- Summary of present knowledge on the representative sampling of ore in the mining industry, by W. Assibey-Bonsu 289

GOLD recovery

- The clean-up of the plant at Bracken Gold Mine, by M.A. de Ruijter 215

- Rate-determining mechanisms for the adsorption of gold di-cyanide onto activated carbon, by N.M. Vegter and R.F. Sandenbergh 109

GOLD mining

- Selective blast mining in gold mines, by I. Bock 183

► H

Hardman, D.R.

- author:** Coal-mining productivity in South Africa compared with Australia and the USA 297

Hillman, J.C.

- author:** Increasing black representation in mining engineering: The need for a new approach..... 77

► I

IRON and steel

- Reduction and sintering of fluxed iron ore pellets—a comprehensive review, by S. Prakash 3

► 6

- Symposium on Clean Steel Production, Vanderbijlpark, 18–20 September 1995, by A.W. Cramb 38

► J

Jarosz, A.P.

- jt. author:** The use of geographical information systems in the integration and visualization of mining data, by S.J.C.L. Peeters and A.P. Jarosz 303

► K

Kenealy, B.

- author:** The Vaun self-climbing skip (SCS) system 187

► L

Limpitlaw, D.

- author:** Sediments as indicators of wetland efficacy in ameliorating acid mine drainage 309

► M

Markgraaff, J.

- author:** Overview of new developments in composite materials for industrial and mining applications 55

MATERIALS engineering

- A bird's-eye view of materials engineering, by G.T. van Rooyen 85

- Materials selection in the mining industry: Old issues and new challenges, by M.B. Cortie, J.J. McEwan, and D.P. Enright 145

- Overview of new developments in composite materials for industrial and mining applications, by J. Markgraaff 55

McEwan, J.J.

- jt. author:** Materials selection in the mining industry: Old issues and new challenges, by M.B. Cortie, J.J. McEwan, and D.P. Enright 145

Meyer, P.

- jt. author:** Quantitative ground penetrating radar for rock mass characterization, by H. White, P. Meyer, and A. Doorgapershad 197

- On the torsional behaviour of triangular-strand hoisting rope, by G. Rebel, M. Borello, and H.D. Chandler 279

MINING engineering

- Centennial reflections of the Department of Mining Engineering at the University of the Witwatersrand, by S. Budavari and H.R. Phillips 201

- Deep level mining and the role of R&D, by R.G.B. Pickering 173

- An overview of the structural design of mine haulage roads, by R.J. Thompson and A.T. Visser 29

- The Vaun self-climbing skip (SCS) system, by B. Kenealy 187

Index

MINERAL processing

- Spotlight:** Report on an International Conference: Mineral Processing—Recent Advances and Future Trends, by M.H. Moys 165

- Spotlight:** Minerals & Materials '96, by E.W. Petersen 326

MINING economics

- Identifying profitability and safety 'hot spots' on your mine, by R.G.B. Pickering and S.G.E. Ashworth 177

MINING industry

- Book review:** *St. Barbara—Journey of a Saint through Time*, by A.W. Davies 164

MODELLING and simulation

- The design of tunnel support in deep hard-rock mines under quasistatic conditions, by C.R. Speers and A.J.S. Spearing 47

- disc:** The design of tunnel support in deep hard-rock mines under quasistatic conditions, W.D. Ortlepp, C.R. Speers, and A.J.S. Spearing 295

- Physical and numerical modelling of rock fracture, by M.U. Ozbay, T. Dede, and J.A.L. Napier 317

- Rate-determining mechanisms for the adsorption of gold di-cyanide onto activated carbon, by N.M. Vegter and R.F. Sandenbergh 109

- Reduction and sintering of fluxed iron ore pellets—a comprehensive review, by S. Prakash 3

- The use of geographical information systems in the integration and visualization of mining data, by S.J.C.L. Peeters and A.P. Jarosz 303

- disc:** *A viscoelastic approach to the modelling of the transient closure behaviour of tabular excavations after blasting*, G. Narsimhan 159
D.F. Malan 161

Moys, M.H.

- Spotlight:** Report on an International Conference: Mineral Processing—Recent Advances and Future Trends 165

> N

Napier, J.A.L.

- jt. author:** Physical and numerical modelling of rock fracture, by M.U. Ozbay, T. Dede, and J.A.L. Napier 317

Narsimhan, G.

- disc:** *A viscoelastic approach to the modelling of the transient closure behaviour of tabular excavations after blasting*, by D.F. Malan [vol.95, no. 5. Sep. 1995. pp. 211-220] 159

Nelson, L.R.

- author:** The preparation of chromium metal by a sealed, cold-hearth, plasma-assisted alumino-thermic method 135

> O

Ortlepp, W.D.

- disc:** The design of tunnel support in deep hard-rock mines under quasistatic conditions, by C.R. Speers and A.J.S. Spearing [vol. 96, no. 2. Mar./Apr. 1996. pp. 47-54] 295

Ozbay, M.U.

- jt. author:** Physical and numerical modelling of rock fracture, by M.U. Ozbay, T. Dede, and J.A.L. Napier 317

> P

Paye, J-C.

- author:** Investing in a clean environment 128

Peeters, S.J.C.L.

- jt. author:** The use of geographical information systems in the integration and visualization of mining data, by S.J.C.L. Peeters, and A.P. Jarosz 303

Petersen, E.W.

- Spotlight:** Minerals & Materials '96 326

Phillips, H.R.

- jt. author:** Centennial reflections of the Department of Mining Engineering at the University of the Witwatersrand, by S. Budavari and H.R. Phillips 201

Pickering, R.G.B.

- author:** Deep level mining and the role of R&D 173

Pickering, R.G.B.

- jt. author:** Identifying profitability and safety 'hot spots' on your mine, by R.G.B. Pickering and S.G.E. Ashworth 177

Pistorius, P.C.

- jt. author:** Sensitization of type 430 ferritic stainless steel during continuous annealing, by P.C. Pistorius and M. Coetzee 119

Pistorius, P.G.H.

- jt. author:** The welding of experimental low-nickel Cr-Mn-N stainless steels containing copper, by M. Coetzee and P.G.H. Pistorius 99

Prakash, S.

- author:** Reduction and sintering of fluxed iron ore pellets—a comprehensive review 3

> R

Rebel, G.

- jt. author:** On the torsional behaviour of triangular-strand hoisting rope, by G. Rebel, M. Borello, and H.D. Chandler 279

Roberts, M.K.C.

- jt. author:** Evaluation of the influence of grout prestressing systems on the performance of timber packs: static and dynamic considerations, by A. Daehnke, P.N. Taggart, and M.K.C. Roberts 41

Index

ROCK engineering

- The design of tunnel support in deep hard-rock mines under quasistatic conditions, by C.R. Speers and A.J.S. Spearing 47
- disc:** The design of tunnel support in deep hard-rock mines under quasistatic conditions, W.D. Ortlepp, C.R. Speers, and A.J.S. Spearing 295
- Evaluation of the influence of grout pre-stressing systems on the performance of timber packs: static and dynamic considerations, by A. Daehnke, P.N. Taggart, and M.K.C. Roberts 41
- Physical and numerical modelling of rock fracture, by M.U. Ozbay, T. Dede, and J.A.L. Napier 317
- The properties of cemented silicated backfill for use in narrow, hard-rock, tabular mines, by G.E. Blight and A.J.S. Spearing 17
- disc:** *A viscoelastic approach to the modelling of the transient closure behaviour of tabular excavations after blasting*, G. Narsimhan 159
D.F. Malan 161

Ross-Watt, D.A.J.

- author:** New Year's message from the President 1

► S

SAIMM

- New Year's message from the President 1

SAIMM annual report

- Annual report and accounts [1995/96] 249

SAIMM awards

- Brigadier Stokes Memorial Award to B.E. Hersov 241
- Honorary life fellowship to H.G. Mosenthal, R.J. Dippenaar, and J.S. Freer 241
- Student prizes to R. Beart and M.A. Clucas, P. Fourie, K.D. Smith, and A.F. Stark 243

SAIMM branches

- Annual report 259

SAIMM meetings

- Annual general meeting (98th), 14 August 1996 241

Sandenbergh, R.F.

- jt. author:** Rate-determining mechanisms for the adsorption of gold di-cyanide onto activated carbon, by N.M. Vegter and R.F. Sandenbergh ... 109

Sole, K.C.

- Spotlight:** ISEC '96 158

SOLVENT extraction

- Spotlight:** ISEC '96, by K.C. Sole 158

Spearing, A.J.S.

- jt. author:** The properties of cemented silicated backfill for use in narrow, hard-rock, tabular mines, by G.E. Blight and A.J.S. Spearing 17

- jt. author:** The design of tunnel support in deep hard-rock mines under quasistatic conditions, by C.R. Speers and A.J.S. Spearing 47

Speers, C.R.

- jt. author:** The design of tunnel support in deep hard-rock mines under quasistatic conditions, by C.R. Speers and A.J.S. Spearing 47

STAINLESS steel

- Sensitization of type 430 ferritic stainless steel during continuous annealing, by P.C. Pistorius and M. Coetzee 119

- The welding of experimental low-nickel Cr-Mn-N stainless steels containing copper, by M. Coetzee and P.G.H. Pistorius 99

► T

Taggart, P.N.

- jt. author:** Evaluation of the influence of grout pre-stressing systems on the performance of timber packs: static and dynamic considerations, by A. Daehnke, P.N. Taggart, and M.K.C. Roberts 41

Thompson, R.J.

- jt. author:** An overview of the structural design of mine haulage roads, by R.J. Thompson and A.T. Visser 29

► V

Van Rooyen, G.T.

- author:** A bird's-eye view of materials engineering .. 85

Vegter, N.M.

- jt. author:** Rate-determining mechanisms for the adsorption of gold di-cyanide onto activated carbon, by N.M. Vegter and R.F. Sandenbergh ... 109

Visser, A.T.

- jt. author:** An overview of the structural design of mine haulage roads, by R.J. Thompson and A.T. Visser 29

► W

White, H.

- jt. author:** Quantitative ground penetrating radar for rock mass characterization, by H. White, P. Meyer, and A. Doorgapershad 197

